



SEQUENCE LISTING

<110> Davids, Andrew Robert
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<120> Cytokine antagonist molecules

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<140> US 10/706691
<141> 2003-11-12

<150> PCT/GB03/01851
<151> 2003-04-30

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<151> 2002-04-30

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<400> 2
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1 5 10 15

Leu Ala Pro Phe Val Tyr Leu Leu Ile Gln Thr Asp
20 25

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<211> 342
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ggcagctgaa gcgggacaag ccagtgaccg tggtgcatgc cattggcaca gaggtcatcg 180
gcacccttgcg gcctgactat cgagaccgta tccgacttt tgaaaatggc tccctgcttc 240

tcagcgacct gcagctggcc gatgaggca cctatgaggt cgagatctcc atcaccgacg 300
acaccttcac tggggagaag accatcaacc ttactttaga tg 342

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<211> 114
<212> PRT
<213> Homo sapiens

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1 5 10 15

Thr Val Gly Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser
20 25 30

Ser Asp Arg Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val
35 40 45

Thr Val Val Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro
50 55 60

Asp Tyr Arg Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu
65 70 75 80

Ser Asp Leu Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser
85 90 95

Ile Thr Asp Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val
100 105 110

Asp Val

<210> 5
<211> 282
<212> DNA
<213> Homo sapiens

<400> 5
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atggcaagcc cctcctcaat gactcgagaa tgctccgtc ccccgaccaa aaggtgctca 180
ccatcaccccg cgtgctcatg gaggatgacg acctgtacag ctgcatggtg gagaacccca 240
tcagccaggg ccgcagcctg cctgtcaaga tcaccgtata ca 282

<210> 6
<211> 94
<212> PRT
<213> Homo sapiens

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Leu Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys
20 25 30

Pro Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser
35 40 45

Arg Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val
50 55 60

Leu Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile
65 70 75 80

Ser Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg
85 90

<210> 7

<211> 94

<212> DNA

<213> Homo sapiens

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tgacagtctg tgcctgtctgg aaaccctcca aaag 94

<210> 8

<211> 31

<212> PRT

<213> Homo sapiens

<400> 8

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Val Thr Leu Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg
20 25 30

<210> 9

<211> 74

<212> DNA

<213> Homo sapiens

<400> 9

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cctgaaacca gaag 74

<210> 10

<211> 25

<212> PRT

<213> Homo sapiens

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Lys Gln Lys Lys Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln
1 5 10 15

Asn Asp Asp Arg Leu Lys Pro Glu Ala
20 25

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<211> 71

<212> DNA

<213> Homo sapiens

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tgaaggacaa g 71

<210> 12

<211> 23

<212> PRT

<213> Homo sapiens

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Leu Tyr Ile Leu Lys Asp Lys

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<210> 13

<211> 303

<212> DNA

<213> Homo sapiens

<400> 13

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tctgccccggc gctaccccgcg ctcccccagcg cgctccccag ccacccggccg gacacactcg 180
tcgcccggcca gggcccccgag ctcgccccggc cgctcgcgca ggcgcctcgcg cacactgcgg 240
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<210> 14

<211> 100

<212> PRT

<213> Homo sapiens

<400> 14

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1 5 10 15

Thr Glu Pro Gly Pro Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly
20 25 30

Arg Ser Pro Gly Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser
35 40 45

Pro Ala Arg Ser Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg
50 55 60

Ala Pro Ser Ser Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg
65 70 75 80

Thr Ala Gly Val His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val
85 90 95

Glu Ile Ser Ala

100

<210> 15
<211> 1251
<212> DNA
<213> Homo sapiens

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cgcctgatcc atggcaccgt gggaaagtgc gctctgctt ctgtgcagta cagcagtacc 180
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ctttacatca tcttgtctac aggaggcatc ttcctccttg tgaccttggt gacagtctgt 780
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tacatggatc agaatgatga ccgcctgaaa ccagaagcag acaccctccc tcgaagtgg 900
gagcaggaac ggaagaacccc catggcactc tatatcctga aggacaagga ctcccccggag 960
accgaggaga acccgcccccc ggagcctcga agcgcgacgg agcccgcccc gcccggctac 1020
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cacataatcc gcgagcaaga cgaggccggc ccgggtggaga tcagcgccctg a 1251

<210> 16
<211> 416
<212> PRT
<213> Homo sapiens

<400> 16
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Leu Ala Pro Phe Val Tyr Leu Leu Ile Gln Thr Asp Pro Leu Glu 20 25 30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly 35 40 45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg 50 55 60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val 65 70 75 80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg 85 90 95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Ser Asp Leu 100 105 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp

115

120

125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
130 135 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145 150 155 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
165 170 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
180 185 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
195 200 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
210 215 220

Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
225 230 235 240

Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu
245 250 255

Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg Lys Gln Lys Lys
260 265 270

Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp Asp Arg
275 280 285

Leu Lys Pro Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln Glu Arg
290 295 300

Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser Pro Glu
305 310 315 320

Thr Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser Ala Thr Glu Pro Gly
325 330 335

Pro Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly Arg Ser Pro Gly
340 345 350

Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala Arg Ser
355 360 365

Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg Ala Pro Ser Ser
370 375 380

Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg Thr Ala Gly Val
385 390 395 400

His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val Glu Ile Ser Ala
405 410 415

<210> 17
<211> 1257
<212> DNA
<213> Homo sapiens

<400> 17

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| gtctacctgc | ttctcatcca | gccagtcccc | ctggaggggg | tgaacatcac | cagcccgta | 120 |
| cgtctgatcc | acggcacagt | gggaaagtcg | gccctgctt | ccgtgcagta | cagttagcacc | 180 |
| agcagcgaca | agcccgtgg | gaagtggcag | ctgaagcgtg | acaagccagt | gaccgtgg | 240 |
| cagtctatag | gcacagaggt | cattggact | ctgcggcctg | actatcgaga | ccgtatccgg | 300 |
| ctcttgaaa | atggctcctt | gcttctcagc | gacctgcagc | tggcggatga | ggaaacctat | 360 |
| gaagtggaga | tttccatcac | tgacgacacc | ttcacccggg | agaagaccat | caacccatcacc | 420 |
| gtggatgtgc | ccatttcaag | gccgcaggta | ttagtggctt | caaccactgt | gctggagctc | 480 |
| agtgaggcct | tcaccctcaa | ctgctcccat | gagaatggca | ccaagcctag | ctacacgtgg | 540 |
| ctgaaggatg | gcaaaccct | cctcaatgac | tcccgaatgc | tcctgtcccc | tgacccaaaag | 600 |
| gtgctcacca | tcaccccgagt | actcatggaa | gatgacgacc | tgtacagctg | tgtggggag | 660 |
| aaccccatca | gccaggtccg | cagcctgcct | gtcaagatca | ctgtgtata | aagaagctcc | 720 |
| ctctatata | tcttgtctac | aggaggcatc | ttcctccttg | tgaccctgg | gacagttgt | 780 |
| gcctgctgga | aaccctcaaa | aaagtctagg | aagaagagga | agttggagaa | gcaaaactcc | 840 |
| ttggaataca | tggatcgaaa | tgtgaccgc | ctaaaatcag | aagcagatac | cctaccccg | 900 |
| agtggagaac | aggagcggaa | gaacccaatg | gcactctata | tcctgaagga | taaggattcc | 960 |
| tcagagccag | atgaaaaccc | tgctacagag | ccacggagca | ccacagaacc | cggtccccct | 1020 |
| ggctactccg | tgtcgccgccc | cgtgcccggc | cgctctccgg | ggcttcccat | ccgctcagcc | 1080 |
| cgcgcgtacc | cgcgcgtcccc | agcacgttcc | cctgccactg | gccggacgca | cacgtcgcca | 1140 |
| ccgcggggccc | cgcgcgtcgcc | aggccgctcg | cgcagcttcc | cgcgcgtact | gcggactgca | 1200 |
| ggcgtgcaga | gaatccggga | gcaggacgag | tcagggcagg | tggagatcag | tgcctga | 1257 |

<210> 18
<211> 418
<212> PRT
<213> Homo sapiens

<400> 18

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Lys | Arg | Glu | Arg | Gly | Ala | Leu | Ser | Arg | Ala | Ser | Arg | Ala | Leu | Arg |
| 1 | | | | | | | | 10 | | | | | | 15 | |
| Leu | Ser | Pro | Phe | Val | Tyr | Leu | Leu | Leu | Ile | Gln | Pro | Val | Pro | Leu | Glu |
| | | | | | | | | 20 | | | | 25 | | 30 | |
| Gly | Val | Asn | Ile | Thr | Ser | Pro | Val | Arg | Leu | Ile | His | Gly | Thr | Val | Gly |
| | | | | | | | | 35 | | | | 40 | | 45 | |
| Lys | Ser | Ala | Leu | Leu | Ser | Val | Gln | Tyr | Ser | Ser | Thr | Ser | Ser | Asp | Lys |
| | | | | | | | 50 | | | | 55 | | 60 | | |
| Pro | Val | Val | Lys | Trp | Gln | Leu | Lys | Arg | Asp | Lys | Pro | Val | Thr | Val | Val |
| | | | | | | | 65 | | | | 70 | | 75 | | 80 |
| Gln | Ser | Ile | Gly | Thr | Glu | Val | Ile | Gly | Thr | Leu | Arg | Pro | Asp | Tyr | Arg |
| | | | | | | | 85 | | | | 90 | | 95 | | |
| Asp | Arg | Ile | Arg | Leu | Phe | Glu | Asn | Gly | Ser | Leu | Leu | Ser | Asp | Leu | |
| | | | | | | | 100 | | | | 105 | | 110 | | |
| Gln | Leu | Ala | Asp | Glu | Gly | Thr | Tyr | Glu | Val | Glu | Ile | Ser | Ile | Thr | Asp |
| | | | | | | | 115 | | | | 120 | | 125 | | |

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
130 135 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145 150 155 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
165 170 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
180 185 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
195 200 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Val Val Glu Asn Pro Ile Ser
210 215 220

Gln Val Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
225 230 235 240

Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu
245 250 255

Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Lys Ser Arg Lys Lys
260 265 270

Arg Lys Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp
275 280 285

Asp Arg Leu Lys Ser Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln
290 295 300

Glu Arg Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser
305 310 315 320

Ser Glu Pro Asp Glu Asn Pro Ala Thr Glu Pro Arg Ser Thr Thr Glu
325 330 335

Pro Gly Pro Pro Gly Tyr Ser Val Ser Pro Pro Val Pro Gly Arg Ser
340 345 350

Pro Gly Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala
355 360 365

Arg Ser Pro Ala Thr Gly Arg Thr His Thr Ser Pro Pro Arg Ala Pro
370 375 380

Ser Ser Pro Gly Arg Ser Arg Ser Ser Ser Arg Ser Leu Arg Thr Ala
385 390 395 400

Gly Val Gln Arg Ile Arg Glu Gln Asp Glu Ser Gly Gln Val Glu Ile
405 410 415

Ser Ala

<210> 19
 <211> 720
 <212> DNA
 <213> Homo sapiens

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 cgcctgtatcc atggcaccgt gggaaagtgc gctctgcctt ctgtgcagta cagcagtacc 180
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 ctgaaggatg gcaagccct cctcaatgac tcgagaatgc tcctgtcccc cgacccaaag 600
 gtgctcacca tcacccgcgt gctcatggag gatgacgacc tgtacagctg catggtgag 660
 aaccccatca gccaggccg cagcctgcct gtcaagatca ccgtatacag aagaagctcc 720

<210> 20
 <211> 240
 <212> PRT
 <213> Homo sapiens

<400> 20
 Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
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Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
 20 25 30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
 50 55 60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
 100 105 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
 115 120 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
 130 135 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
 145 150 155 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro

165

170

175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
 180 185 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
 195 200 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
 210 215 220

Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
 225 230 235 240

<210> 21
 <211> 621
 <212> DNA
 <213> Homo sapiens

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 accgtataca gaagaagctc c 621

<210> 22
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 22
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Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Asp Arg Pro
 20 25 30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
 35 40 45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
 50 55 60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Ser Asp Leu Gln
 65 70 75 80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
 85 90 95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
100 105 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
115 120 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
130 135 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
145 150 155 160

Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
165 170 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
180 185 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
195 200 205

<210> 23

<211> 328

<212> DNA

<213> Homo sapiens

<400> 23

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gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag 240
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gagaagacca tcaaccttac tgttagatg 328

<210> 24

<211> 110

<212> PRT

<213> Homo sapiens

<400> 24

Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
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Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Asp Arg Pro
20 25 30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
35 40 45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
50 55 60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Ser Asp Leu Gln
65 70 75 80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
85 90 95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val
100 105 110

<210> 25
<211> 1152
<212> DNA
<213> Homo sapiens

<400> 25
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gacaagccag tgaccgtggc gcagtcattt ggcacagagg tcatcggcac cctgcggcct 180
gactatcgag accgtatccg actcttgaa aatggctccc tgcttctcag cgaccgtcag 240
ctggccgatg agggcaccta tgaggtcgag atctccatca cgcacgcac cttcactggg 300
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tcaaccactg tgctggagct cagcgaggcc ttcacccatc actgctcaca tgagaatggc 420
accaagccca gctacacccg gctgaaggat ggcaagcccc tcctcaatga ctcgagaatg 480
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accgtataca gaagaagctc cctttacatc atcttgcata caggaggcat cttccctcctt 660
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atcagcgcc 1152

<210> 26
<211> 383
<212> PRT
<213> Homo sapiens

<400> 26
Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
1 5 10 15

Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
20 25 30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
35 40 45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
50 55 60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
65 70 75 80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
85 90 95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
100 105 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
115 120 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
130 135 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
145 150 155 160

Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
165 170 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
180 185 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser Leu
195 200 205

Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu Val
210 215 220

Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg Lys Gln Lys Lys Leu
225 230 235 240

Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp Asp Arg Leu
245 250 255

Lys Pro Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln Glu Arg Lys
260 265 270

Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser Pro Glu Thr
275 280 285

Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser Ala Thr Glu Pro Gly Pro
290 295 300

Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly Arg Ser Pro Gly Leu
305 310 315 320

Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala Arg Ser Pro
325 330 335

Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg Ala Pro Ser Ser Pro
340 345 350

Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg Thr Ala Gly Val His
355 360 365

Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val Glu Ile Ser Ala
370 375 380

<210> 27
<211> 37
<212> DNA
<213> Artificial Sequence

| | | |
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| <220> | | |
| <223> | GCP Forward Primer | |
| <400> | 27 | |
| | ggggacaagt ttgtacaaaa aaggcaggctt cgccacc | 37 |
| <210> | 28 | |
| <211> | 51 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |
| <220> | | |
| <223> | GCP Reverse Primer | |
| <400> | 28 | |
| | ggggaccact ttgtacaaga aagctgggtt tcaatggtga tggtgatgggt g | 51 |
| <210> | 29 | |
| <211> | 41 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |
| <220> | | |
| <223> | INSP052-B1P-exon1F Primer | |
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| | gcaggcttcg ccaccatgaa gagagaaagg ggagccctgt c | 41 |
| <210> | 30 | |
| <211> | 36 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |
| <220> | | |
| <223> | INSP052-exon1R Primer | |
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| | tcacccccc caggggtct gtctggatca gaagaa | 36 |
| <210> | 31 | |
| <211> | 36 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |
| <220> | | |
| <223> | INSP052-exon2F Primer | |
| <400> | 31 | |
| | ttcttctgat ccagacagac cccctggagg gggtga | 36 |
| <210> | 32 | |
| <211> | 36 | |
| <212> | DNA | |
| <213> | Artificial Sequence | |
| <220> | | |
| <223> | INSP052-exon2R Primer | |

<400> 32
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<210> 33
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<212> DNA
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<220>
<223> INSP052-exon3F Primer

<400> 33
caaccttact gtagatgtgc ccatttcgag gccaca 36

<210> 34
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> INSP052-exon3R Primer

<400> 34
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<210> 35
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> INSP052-5HIS-R Primer

<400> 35
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<210> 36
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> pEAK12-F Primer

<400> 36
gccagcttgg cacttgatgt 20

<210> 37
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> pEAK12-R Primer

<400> 37

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20

<210> 38
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> pENTR-F1 Primer

<400> 38
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25

<210> 39
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> pENTR-R1 Primer

<400> 39
gtaacatcag agattttgag acac

24

<210> 40
<211> 2024
<212> DNA
<213> Homo sapiens

<400> 40
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cgcctgatcc atggcaccgt ggggaagtcg gctctgctt ctgtgcagta cagcagtacc 180
agcagcaca ggcctgtagt gaagtggcag ctgaagcggg acaagccagt gaccgtggtg 240
cagtcatttgc acacagaggt catcggcacc ctgcggcctg actatcgaga ccgtatccga 300
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gcctgcttga aaccctccaa aaggaaacag aagaagctag aaaagcaaaa ctccctggaa 840
tacatggatc agaatgtatca ccgcctgaaa ccagaagcag acaccctccc tcgaagtgg 900
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| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|------|
| tgtgttgttt | ccccccacc | accctccct | ctgaacaaat | gcctgagtgc | tggggcactt | 1680 |
| ttttttttt | ttttttttt | ttttttttg | caagttcaga | tttagagaggc | cacttccca | 1740 |
| gaatccacag | ctgcactaaag | ctaaggagaa | gccagatgcc | ggttactggg | tgtcagggg | 1800 |
| ctgttctgag | ctggggggat | cattgtgaag | gccttctcc | ctgggcacct | ggtacctggg | 1860 |
| gacctacaag | gtggtgaggg | aagggtacga | gtacattctt | tttccctctg | acctgggcgc | 1920 |
| tagcaagggc | aaagaacccg | agcctgccag | cttggcctcc | tcccacagcc | tccctcgag | 1980 |
| gcatgccatg | ccaaacactc | tttctgtctc | tgttcatgaa | taaa | | 2024 |

<210> 41
 <211> 416
 <212> PRT
 <213> Homo sapiens

<400> 41
 Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
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Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
 20 25 30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
 35 40 45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
 50 55 60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
 65 70 75 80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
 85 90 95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Ser Asp Leu
 100 105 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
 115 120 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
 130 135 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
 145 150 155 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
 165 170 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
 180 185 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
 195 200 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
 210 215 220

Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser

| | | | |
|---|-----|-----|-----|
| 225 | 230 | 235 | 240 |
| Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu | | | |
| 245 | 250 | 255 | |
| Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg Lys Gln Lys Lys | | | |
| 260 | 265 | 270 | |
| Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp Asp Arg | | | |
| 275 | 280 | 285 | |
| Leu Lys Pro Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln Glu Arg | | | |
| 290 | 295 | 300 | |
| Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser Pro Glu | | | |
| 305 | 310 | 315 | 320 |
| Thr Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser Ala Thr Glu Pro Gly | | | |
| 325 | 330 | 335 | |
| Pro Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly Arg Ser Pro Gly | | | |
| 340 | 345 | 350 | |
| Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala Arg Ser | | | |
| 355 | 360 | 365 | |
| Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg Ala Pro Ser Ser | | | |
| 370 | 375 | 380 | |
| Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg Thr Ala Gly Val | | | |
| 385 | 390 | 395 | 400 |
| His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val Glu Ile Ser Ala | | | |
| 405 | 410 | 415 | |

<210> 42
 <211> 860
 <212> DNA
 <213> Homo sapiens

<400> 42
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 agagcctcca gggccctgcg cttgtctcct tttgtctacc ttcttctgat ccagacagac 120
 cccctggagg gggtaacat caccagcccc gtgcgcctga tccatggcac cgtgggaaag 180
 tcggctctgc ttctgtgca gtacagcagt accagcagcg acaggcctgt agtgaagtgg 240
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 agcgacctgc agctggccga tgagggcacc tatgaggtcg agatctccat caccgacgac 420
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 gtgttggtgg cttcaaccac tttgtgtggag ctcagcgagg ctttcacctt gaaactgctca 600
 catgagaatg gcaccaagcc cagctacacc tggctgaagg atggcaagcc ctttcctcaat 660
 gactcgagaa tgctcctgtc ccccgaccaa aagggtgtca ccatcaccccg cgtgtcatg 720
 gaggatgacg acctgtacag ctgcgttgtg gagaacccca tcagccaggg ccgcagcctg 780
 cctgtcaaga tcaccgtata cagaagaagc tcccaccatc accatcacca ttgaaaccca 840
 gcttttttgt acaaagtgg 860

<210> 43
<211> 246
<212> PRT
<213> Homo sapiens

<400> 43
Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
1 5 10 15

Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
20 25 30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
35 40 45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
50 55 60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
65 70 75 80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
85 90 95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Ser Asp Leu
100 105 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
115 120 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
130 135 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145 150 155 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
165 170 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
180 185 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
195 200 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
210 215 220

Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
225 230 235 240

His His His His His
245